

**Abstract**

A microbial oxidoreductase capable of converting carotenoid substrates is provided. The oxidoreductase may be obtained from basidiomycetes, especially *Lepista irina*. An isolated nucleic acid encoding an open reading frame for the oxidoreductase is also provided, together with a polypeptide encoded by the nucleic acid. Carotenoids may be converted by incubation with the enzyme. Applications for the oxidoreductase include inclusion in detergent compositions for use in the treatment of stains, especially carotene-based stains.